



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,022	04/09/2004	Kenichi Fujii	1232-5375	1674
27123	7590	05/15/2008		
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101				
EXAMINER				
BELANI, KISHIN G				
ART UNIT		PAPER NUMBER		
2143				
NOTIFICATION DATE		DELIVERY MODE		
05/15/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOPatentCommunications@Morganfinnegan.com  
Shopkins@Morganfinnegan.com  
jmedina@Morganfinnegan.com

# Office Action Summary

**Application No.**

10/822,022

**Applicant(s)**

FUJII, KENICHI

**Examiner**

KISHIN G. BELANI

**Art Unit**

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 4-13 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Individual Patent Application  
6) ☒ Other: Supplemental IDS dated 11/08/2007



### DETAILED ACTION

This action is in response to Applicant's amendment filed on 01/22/2008.

**Independent Claims 1 and 13 have been amended. Dependent claims 4-12 have also been amended. Dependent claims 2-3 have been cancelled. Claims 1 and 4-13 are now pending** in the present application. The applicants' amendments to the claims are shown in ***bold and italics***, and the examiner's response to the amendments is shown in **bold** in this office action. **This Action is made FINAL.**

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 4 and 13** are rejected under 35 U.S.C. 102(b) as being anticipated by **Mogul (U.S. Patent Publication # 5,014,221)**.

Consider **claim 1**, Mogul shows and discloses a communication apparatus (**Fig. 1 that shows a printer 20 with a printer server 22 acting as a communication apparatus; column 3, lines 40-47 disclose the same details**) comprising:  
an instruction ***device adapted to instruct*** ~~means for instructing~~ a communication

partner to transmit data having a designated data length (Fig. 1, printer server 22 further acting as an instruction device; communication partners Personal Computers 14 and 16, Mini Computer 18; column 2, lines 27-32 which disclose that the printer will send (via printer server 22) an "open window" message, specifying a window size equal to the available memory in the printer); and a discrimination *device adapted to discriminate a remaining storage capacity of a memory for storing data received from the communication partner* means for discriminating a status of the communication apparatus (column 5, lines 5-11 which disclose that the "window" message informs the minicomputer 26 how much data the print server 22 can accommodate; further stating that when the print server 22 has limited memory, windows prevent the minicomputer interface 26 from sending more data than the print server 22 can store, otherwise data would be lost; claim 1 element (b) further disclosing a determining means responsive to the reception of the print request data packets for determining the amount of memory means available for data to be printed), wherein the instruction *device* means instructs the communication partner to interrupt data transmission by setting the designated data length to *zero* a predetermined length in accordance with a result of *the remaining storage capacity of the memory discriminated* discrimination by the discrimination device means (column 5, lines 26-38 which disclose that when the print server 22 sends a closed window data packet 48 (in Fig. 4) to the minicomputer interface 26, TCP provides a "zero-window-probe"; column 2, lines 14-26 which disclose that the size specified can

be zero, meaning the window is closed, thereby interrupting the data transmission; claim 1, element (c) (ii) which states sending a connection open return data packet to the requesting remote process and queuing the print request if there is no available memory, said connection open return data packet including data representing zero available memory).

Consider **claim 4**, and as it applies to **claim 1** above, Mogul discloses the claimed communication apparatus, including wherein the discrimination device ~~means~~ discriminates whether an amount of data stored in ~~a~~ **the** memory exceeds a predetermined value (**column 5, lines 5-11 which disclose that the “window” message informs the minicomputer 26 how much data the print server 22 can accommodate; further stating that when the print server 22 has limited memory, windows prevent the minicomputer interface 26 from sending more data than the print server 22 can store, otherwise data would be lost; claim 1 element (b) further disclosing a determining means responsive to the reception of the print request data packets for determining if the amount of memory is adequate for the data to be printed**), and the instruction ~~device means~~ sets the designated data length to zero in accordance with the result of the discrimination (**column 5, lines 26-38 which disclose that when the print server 22 sends a closed window data packet 48 (in Fig. 4) to the minicomputer interface 26, TCP provides a “zero-window-probe”; column 2, lines 14-26 which disclose that the size specified can be zero, meaning the window is**

closed; claim 1, element (c) (ii) which states sending a connection open return data packet to the requesting remote process and queuing the print request if there is no available memory, said connection open return data packet including data representing zero available memory).

Consider **claim 13**, Mogul shows and discloses a communication method (**Fig. 1** that shows a printer 20 with a printer server 22 communicating with Personal Computers 14 and 16 and a Mini Computer 18 over a LAN network; column 3, lines 37-47 disclose the same details) comprising:  
notifying a communication partner about a transmission data length (**Fig. 1, printer server 22 notifying communication partners Personal Computers 14 and 16, and Mini Computer 18; column 2, lines 27-32 which disclose that the printer will send (via printer server 22) an “open window” message, specifying a window size (transmission data length) equal to the available memory in the printer); and discriminating a remaining storage capacity of a memory for storing data received from the communication partner** ~~a status of the communication apparatus~~ (column 5, lines 5-11 which disclose that the “window” message informs the minicomputer 26 how much data the print server 22 can accommodate; further stating that when the print server 22 has limited memory, windows prevent the minicomputer interface 26 from sending more data than the print server 22 can store, otherwise data would be lost; claim 1 element (b) further disclosing a determining means responsive to the reception of the print request data packets for determining the

Art Unit: 2154

**amount of memory means available for data to be printed),**

wherein the transmission data length that the communication partner is notified about is set at ~~zero a predetermined length~~ in accordance with a result of the discrimination (column 5, lines 26-38 which disclose that when the print server 22 sends a closed window data packet 48 (in Fig. 4) to the minicomputer interface 26, TCP provides a “zero-window-probe”; column 2, lines 14-26 which disclose that the size specified can be zero, meaning the window is closed, thereby interrupting the data transmission; claim 1, element (c) (ii) which states sending a connection open return data packet to the requesting remote process and queuing the print request if there is no available memory, said connection open return data packet including data representing zero available memory).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.



4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)**.

Consider **claim 5**, and as it applies to **claim 1** above, Mogul discloses the claimed communication apparatus, except wherein the instruction **device means** instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard.

In the same field of endeavor, Kawamura discloses the claimed communication apparatus, wherein the instruction **device means** instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard (paragraph 0003 which discloses that the short-distance Bluetooth wireless communication system accommodates profiles which specify how the data transmission is carried out for each data type to be transmitted).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the instruction device that instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard, as taught Kawamura, in the communication

apparatus of Mogul, so as to be able to wirelessly print digital images from a digital camera when the camera is in proximity of a printer with Bluetooth capabilities.

**Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **DPOF Version 1.10 (at the website [http://panasonic.jp/dc/dpof\\_110/white\\_e.htm](http://panasonic.jp/dc/dpof_110/white_e.htm) dated July 17, 2000, printed copy provided).**

Consider **claim 6**, and as it applies to **claim 5** above, Mogul, as modified by Kawamura, disclose the claimed communication apparatus, except wherein the predetermined profile procedure is the Advanced Image Printing defined in the Basic Imaging Profile of the Bluetooth standard.

In the same field of endeavor, Panasonic Website listed above discloses the claimed Advanced Image Printing profile procedure defined in the Basic Imaging Profile of the Bluetooth standard (page 3, section 3-2 (Advanced functions)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the Advanced Image Printing profile procedure defined in the Basic Imaging Profile of the Bluetooth standard, as taught by DPOF Version 1.10 specifications, in the communication apparatus of Mogul, as modified by Kawamura, so as to be able to utilize advanced features of DPOF for functions associated with digital cameras and printers.

**Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Taniguchi et al. (US Patent Publication # 5,999,707)** and further in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1)** and further in view of **Horst et al. (US Patent Publication # 6,157,967)**.

Consider **claim 7**, and as it applies to **claim 1 above**, Mogul discloses the claimed communication apparatus, except further comprising:  
a storage **device adapted to store means for storing** a data list received from the communication partner; a judgment **device adapted to judge means for judging** whether every data contained in the data list is acquired; a detection **device adapted to detect means for detecting** a data output error in the communication apparatus; and a disconnection request halt **device adapted to halt means for halting** transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment **device means** and a result of detection by the detection **device means**.

In the same field of endeavor, Taniguchi et al. discloses the claimed communication apparatus, further comprising a storage **device adapted to store means for storing** a data list received from the communication partner (Fig. 4, NVRAM 18; column 2, lines 35-37 that describe the circuit configuration of a printer shown in Fig. 4; column 5, lines 45-50 which disclose that NVRAM 18 contains job list data, thereby

disclosing a storage device for storing a data list received from the communication partner); and

a judgment ***device adapted to judge*** ~~means for judging~~ whether every data contained in the data list is acquired (Fig. 10B which shows a display of the "Print Job Management Data", listing all the generated job IDs, thereby disclosing a judgment device for judging whether every data contained in the data list is acquired; column 10, lines 46-58 that disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a storage device adapted to store a data list received from the communication partner; and a judgment device adapted to judge whether every data contained in the data list is acquired, as taught by Taniguchi et al., in the communication apparatus of Mogul, so that a number of print requests can be simultaneously transmitted and processed.

However, Mogul, as modified by Taniguchi et al., does not disclose a detection ***device adapted to detect*** ~~means for detecting~~ a data output error in the communication apparatus; and a disconnection request halt ***device adapted to halt*** ~~means for halting~~ transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment ***device*** ~~means~~ and a result of detection by the detection ***device*** ~~means~~.

In the same field of endeavor, Miyasaka et al. show and disclose a detection ***device adapted to detect*** ~~means for detecting~~ a data output error in the communication apparatus (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control

Art Unit: 2154

means 68 that provide error detection means for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage means; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection device adapted to detect a data output error in the communication apparatus, as taught by Miyasaka et al., in the communication apparatus of Mogul, as modified by Taniguchi et al., so that a user may be able to correct any recoverable errors, such as paper jams.

However, Mogul, as modified by Taniguchi et al. and Miyasaka et al., do not disclose a disconnection request halt **device adapted to halt means for halting** transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment **device means** and a result of detection by the detection **device means**.

In the same field of endeavor, Horst et al. disclose a disconnection request halt **device adapted to halt means for halting** transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment **device means** and a result of detection by the detection **device means** (column 51, lines 62- 67 which disclose a "HALT" command used for terminating message transmission between the CPU 12 and the I/O packet interface 16; column 52, lines 17-22 which disclose a means to disable

HALT command processing, by including a "halt enable register" in the configuration register 75 of the interface unit 24, thereby disclosing a disconnection request halt device adapted to halt transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment device and a result of detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a disconnection request halt device adapted to halt transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment device and a result of detection by the detection device, as taught by Horst et al., in the communication apparatus of Mogul, as modified by Taniguchi et al. and Miyasaka et al., so that in case of a data transmission error causing incomplete reception of data, a request for retransmission can be made.

**Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Kanakubo (US Patent Publication # 5,897,252)**.

Consider **claim 8**, and as it applies to **claim 1 above**, Mogul discloses the claimed communication apparatus, except further comprising:  
a detection **device adapted to detect** means for detecting a data output error in the communication apparatus; and an instruction halt **device adapted to halt** means for

~~halting~~ an instruction of the instruction ~~device means~~ **in accordance with** a result of detection by the detection ~~device means~~.

In the same field of endeavor, Kanakubo shows and discloses the claimed communication apparatus, further comprising:

a detection ~~device adapted to detect means for detecting~~ a data output error in the communication apparatus (Abstract that discloses a printing apparatus with an error processor capable of detecting data output errors; Fig. 3, Error Processor 6; Fig. 4 that shows format of error information; flowchart of Fig. 5 that shows detecting and processing errors; column 5, lines 34-43 that disclose the same details); and an instruction halt ~~device adapted to halt means for halting~~ an instruction of the instruction ~~device means~~ **in accordance with** a result of detection by the detection ~~device means~~ (Abstract that discloses a printing apparatus communicating the detected abnormal situation to a power controller, which turns the power off, thereby halting any instructions to the printer (communication apparatus); flowchart in Fig. 6, column 5, lines 44-58 that disclose a power controller 7, receiving error information from the error processor and after a set delay, turns the power off to the communication apparatus, thereby disclosing an instruction halt device adapted to halt an instruction of the instruction device in accordance with a result of detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection device adapted to detect a data output error in the communication apparatus; and an instruction halt device adapted to halt an instruction of the instruction device in accordance with a result of detection by

the detection device, as taught by Kanakubo, in the communication apparatus of Mogul, so as to prevent sending instructions to the communication apparatus when it is non-functional.

**Claims 9 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1)**.

Consider **claim 9**, and as it applies to **claim 1 above**, Mogul discloses the claimed communication apparatus, except further comprising a detection **device adapted to detect means for detecting** a data output error in the communication apparatus and removal of the error, wherein the instruction **device means** instructs the communication partner to perform the data transmission from data following already received data in accordance with a result of error removal detection by the detection **device means**.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:  
a detection **device adapted to detect means for detecting** a data output error in the communication apparatus and removal of the error (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control 68 that provide error detection for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage; column 5, lines 12-20 which disclose recoverable and non-



Art Unit: 2154

recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam, thereby allowing removal of the recoverable errors);

wherein the instruction **device means** instructs the communication partner to perform the data transmission from data following already received data in accordance with a result of error removal detection by the detection **device means** (Fig. 5, command interpreter 66 acting as the instruction device, host computer 61 acting as the communication partner; column 20, lines 9-14 which disclose that printing can be resumed without destroying the data already received once the cause of the error is corrected, thereby disclosing that the host computer performs the data transmission from data following already received data in accordance with a result of error removal detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection device for detecting a data output error in the communication apparatus and removal of the error, wherein the instruction means instructs the communication partner to perform the data transmission from data following already received data in accordance with a result of error removal detection by the detection device, as taught by Miyasaka et al., in the communication apparatus of Mogul, so as to be able to continue print processing after recovery from error such as out-of-paper or paper jam.

Consider **claim 12**, and **as it applies to claim 1 above**, Mogul discloses the claimed communication apparatus, except further comprising a detection **device adapted to detect** ~~means for detecting~~ a data output error in the communication apparatus and removal of the error; and a judgment **device adapted to judge** ~~means for a type of the error detected~~ ~~defected~~ by the detection **device means**, wherein the instruction **device means** instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment **device means** and a result of error removal detection by the detection **device means**.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:  
a detection **device adapted to detect** ~~means for detecting~~ a data output error in the communication apparatus and removal of the error (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control 68 that provide error detection device for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam, thereby allowing removal of the recoverable errors);  
a judgment **device adapted to judge** ~~means for a type of the error detected~~ ~~defected~~ by the detection **device means** (Fig. 5, Control 68 which receives and analyzes the type of errors detected by detectors 71, 47 and 54; flowchart in Fig. 13, decision blocks 211

and 213 disclosing a judgment device for a type of the error detected by the detection device; column 20, lines 9-14 that disclose the same details); wherein the instruction **device means** instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment **device means** and a result of error removal detection by the detection **device means** (Fig. 5, command interpreter 66 acting as the instruction device, host computer 61 acting as the communication partner; column 20, lines 15-18 which disclose that when recovering from an error, a user may choose to resume printing after destroying the data already transmitted to the printing apparatus, thereby disclosing a request to the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection device adapted to detect a data output error in the communication apparatus and removal of the error; and a judgment device adapted to judge a type of the error detected by the detection device, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device, as taught by Miyasaka et al., in the communication apparatus of Mogul, so as to be able to continue print processing after recovery from a recoverable error.

**Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Shigemori (U.S. Patent Publication # 6,466,963 B1)**.

Consider **claim 10**, and as it applies to **claim 1** above, Mogul discloses the claimed communication apparatus, except further comprising a detection **device adapted to detect** ~~means for detecting~~ a data output error in the communication apparatus and removal of the error, wherein the instruction **device** ~~means~~ instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection **device** ~~means~~.

In the same field of endeavor, Shigemori discloses the claimed communication apparatus, further comprising a detection **device adapted to detect** ~~means for detecting~~ a data output error in the communication apparatus and removal of the error, wherein the instruction **device** ~~means~~ instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection **device** ~~means~~ (Fig. 7, time out block 340 that starts a countdown timer with a set period within which if the transmission is not complete, the timer is reset back to the set period and a retransmission is initiated; this process being repeated for a fixed number of times, before aborting with an error; the use of timer comprising a detection device for detecting a data output error in the

Art Unit: 2154

communication apparatus and upon removal of the error (resetting and restarting of timer), repeating retransmission being indicative of the instruction device instructing the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection device; column 6, lines 55-67 and column 7, lines 1-22 that disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection device adapted to detect a data output error in the communication apparatus and removal of the error, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection device, as taught by Shigemori, in the communication apparatus of Mogul, so as to be able to recover from a temporary loss of transmission capability.

**Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1)** and further in view of **Chiba et al. (US Patent Publication # 6,665,088 B1)**.

Consider **claim 11**, and **as it applies to claim 1 above**, Mogul discloses the claimed communication apparatus, except further comprising a detection **device adapted to detect** ~~means for detecting~~ a data output error in communication apparatus

and removal of the error; and a judgment ~~device adapted to means for~~, when the detection ~~device means~~ detects the error, ~~judging judge~~ whether already received data is lost, wherein the instruction ~~device means~~ instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result ~~of the~~ judgment by the judgment ~~device means~~ and a result of error removal detection by the detection ~~device means~~.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:  
a detection ~~device adapted to detect means for detecting~~ a data output error in communication apparatus and removal of the error (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control 68 that provide error detection for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam, thereby allowing removal of the recoverable errors); and  
wherein the instruction ~~device means~~ instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result ~~of the~~ judgment by the judgment ~~device means~~ and a result of error removal detection by the detection ~~device means~~ (Fig. 5, command interpreter 66 acting as the instruction device, host computer 61 acting as the communication partner; column 20, lines 15-18 which disclose that when recovering from an error, a user may choose to resume

printing after destroying the data already transmitted to the printing apparatus, thereby disclosing a request to the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection device adapted to detect a data output error in communication apparatus and removal of the error, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device, as taught by Miyasaka et al., in the communication apparatus of Mogul, so as to be able to continue print processing after recovery from a recoverable error.

However, Mogul, as modified by Miyasaka et al., does not disclose a judgment **device adapted to** means for, when the detection **device** means detects the error, ~~judging~~ **judge** whether already received data is lost.

In the same field of endeavor, Chiba et al. show and disclose the claimed communication apparatus, further comprising a judgment ~~device adapted to~~ means for, ~~when the detection device means detects the error, judging judge whether already received data is lost~~ (column 10, lines 13-27 which disclose a buffer underrun error, resulting in retransmission of all the data starting at the first band, and including all subsequent bands of image data)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a judgment device adapted to, when the detection device detects the error, judge whether already received data is lost, as taught by Chiba et al., in the communication apparatus of Mogul, as modified by Miyasaka et al., so as to be able to continue print processing after recovery from a non-recoverable error, requiring retransmission of the previously transmitted data.

### ***Response to Arguments***

Applicant's arguments with respect to **claims 1 and 4-13** have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



Art Unit: 2154

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Art Unit: 2143

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kishin G. Belani whose telephone number is (571) 270-1768. The Examiner can normally be reached on Monday-Thursday from 6:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

Art Unit: 2154

more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-0800.

*Kishin G. Belani*

K.G.B./kgb

April 29, 2008

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154